

AMENDMENT

Please add the following new claims:

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-- 27. (New) A method for facilitating the processing of a biopharmaceutical product comprising:

providing a vessel adapted to receive a medium comprising a biopharmaceutical product therein, said vessel having an interior cavity defined by at least an interior wall of said vessel;

providing a passage for actively cooling said interior wall using a cooling fluid;  
and

providing a heat exchange structure within said cavity, said heat exchange structure including a dual flow conduit having one or more heat transfer members thermally coupled thereto, said dual flow conduit defining a passage for actively cooling the one or more heat exchange members using a cooling fluid.

a 28. The method of claim 27, wherein said dual flow conduit comprises a core member defining an interior passage adapted to receive a fluid and an outer member spaced from the core member and defining an outer passage with the core member, wherein the inner and outer passages are in fluid communication with each other to define a flow path for a fluid.

29. The method of claim 28, further comprising providing fluid to direct down the interior passage and up the outer passage.

30. The method of claim 27, wherein said dual flow conduit is centrally located within said interior cavity.

31. The method of claim 27, wherein said structure is removably mounted within said interior cavity of said vessel.

32. The method of claim 27, wherein said one or more heat transfer members are fins.
33. The method of claim 32, wherein said fins extend radially outward from said dual flow conduit.
34. The method of claim 33, wherein said fins are configured symmetrically around said dual flow conduit to form substantially similar compartments within said interior cavity.
35. A method of processing a biopharmaceutical product comprising:  
providing a vessel adapted to receive a medium comprising a biopharmaceutical product therein, said vessel having an interior cavity defined by an interior wall of said vessel and a heat exchange structure within said cavity, said heat exchange structure having a dual flow conduit having one or more heat transfer members thermally coupled thereto;  
placing a medium comprising a biopharmaceutical product within said vessel;  
actively cooling said interior wall using a cooling fluid;  
actively cooling said heat exchange structure by flowing a fluid through the dual flow conduit; and  
freezing the medium within said vessel to preserve said biopharmaceutical product.
36. The method of claim 35, wherein said dual flow conduit comprises a core member defining an interior passage adapted to receive a fluid and an outer member spaced from the core member and defining an outer passage with the core member, wherein the inner and outer passages are in fluid communication with each other to define a flow path for a fluid.
37. The method of claim 36, further comprising directing fluid down the interior passage and up the outer passage.
38. The method of claim 35, wherein said dual flow conduit is centrally located within said interior cavity.

39. The method of claim 35, wherein said structure is removably mounted within said interior cavity of said vessel.

40. The method of claim 35, wherein said one or more heat transfer members are fins.

41. The method of claim 40, wherein said fins extend radially outward from said dual flow conduit.

42. The method of claim 41, wherein said fins are configured symmetrically around said dual flow conduit to form substantially similar compartments within said interior cavity. - -

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